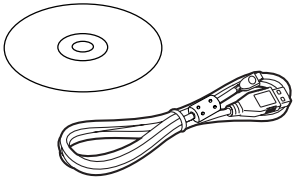
Panasonic®

Operating Instructions

For PC Connection



Before use, please read these instructions completely.

VQT0N44-1

Before opening the CD-ROM package, please read the following.

NV-GS21/17: not supplied

End User License Agreement (for USB Driver, Video Stream Driver and MotionDV STUDIO)

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WARNING:

To reduce the risk of fire or shock hazard, do not expose this equipment to rain or moisture.

CAUTION:

To reduce the risk of fire or shock hazard and annoying interference, use the recommended accessories only.

Before Use

Introduction

You can connect your personal computer to a movie camera that has a USB terminal. You can transfer images recorded with your movie camera to your personal computer.

By controlling the movie camera from the personal computer, the desired images from tape or camera can be acquired into the personal computer.

Notes on these instructions

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- Intel®, Pentium® and Celeron® are the registered trademarks or trademarks of the Intel Corporation in the United States and/or other countries.
- All other names, company names, product names, etc. in these instructions are the trademarks or registered trademarks of their respective corporations.
- The names of the products you are using may differ from the names given in the text. Depending on the operating environment and other factors, the contents of the screens used in these instructions may not necessarily match what you will see on your screen.
- Although the screens in these operating instructions are shown in English for the sake of example, other languages are supported as well.
- In this manual, the Panasonic make digital video camera with USB terminal is referred to as movie camera.
- These instructions do not cover the basic operations of the personal computer or define any terms. For this information, refer to the operating instructions which accompany your personal computer.

Names and functions of packaged items

1) **USB connection cable (NV-GS17: not supplied):**
   - This cable is used to connect a personal computer with your movie camera.
2) **CD-ROM (NV-GS21/17: not supplied):**
   MotionDV STUDIO 5.3E LE **(➜ 9)**
   Video Stream Driver **(➜ 10)**
   USB Driver **(➜ 11)**
   Acrobat Reader
   DirectX

   - When your OS is Windows 98SE, USB Driver enables you to use the USB connection cable. Make sure USB Driver is installed before connecting cable.
   - If the movie camera is connected to your personal computer, you can send video from the movie camera to the other parties via the network. (Windows XP SP1 or later.)
   - To activate MotionDV STUDIO, Microsoft DirectX 9.0b or later should be installed. If it is not installed in your personal computer, you can install it from the supplied CD-ROM. Click [DirectX] on the CD launcher and then follow the instruction message on the screen to install it. (If you install Video Stream Driver, Microsoft DirectX 9.0b is automatically installed.)
   - Using the MotionDV STUDIO 5.3E LE software allows you to capture the video recorded on a tape or images viewed through the lens of a camera. Connecting the movie camera with the DV cable also allows you to output images edited on the personal computer to the tape in the movie camera.
   - If the movie camera is connected to the personal computer with a USB cable or does not have the DV input function, you cannot output the video from the personal computer to the movie camera.

Check before Use

Available software and required drivers vary depending on the OS of the personal computer,
Check the required software and drivers with the table described below and then install them from the CD-ROM (NV-GS21/17: not supplied).

Purpose of use	Software used	Installation of drivers			
		Windows XP	**Windows 2000**	**Windows Me**	**Windows 98SE**
Copying files in the card onto the personal computer ● PC mode	**No software (The movie camera is used as a removable disc.)**	**Not required**	**Not required**	**Not required**	**USB driver**
Capturing pictures on the tape to the personal computer ● Tape recording mode ● Tape playback mode	**MotionDV STUDIO (Connect with the DV cable (optional).)**	**Not required** *1	**Not required** *1	**Not required** *1	Not available
	MotionDV STUDIO (Connect with the USB connection cable (supplied).)	**Video Stream Driver** *1, 2, 3, 5	**Video Stream Driver** *1, 2, 4	Not available	Not available
Recording pictures on the personal computer to the tape ● Tape playback mode	**MotionDV STUDIO (Connect with the DV cable (optional).)**	**Not required** *1	**Not required** *1	**Not required** *1	Not available
	MotionDV STUDIO (Connect with the USB connection cable (supplied).)	Not available	Not available	Not available	Not available
Using the movie camera as a WEB camera ● Tape recording mode ● Tape playback mode	**Windows Messenger**	**Video Stream Driver** *1, 3, 5	Not available	Not available	Not available

*1 If DirectX 9.0b or later is not installed in the personal computer you use, the installation of [DirectX] is required.
*2 The personal computer you use should comply with USB2.0 (High Speed).
*3 Available only on Windows XP SP1 or later
*4 Available only on Windows 2000 SP4 or later
*5 Not required for Windows XP SP2

● If using other brands of video editing software, please consult with your retailer for compatibility.

Operating environment

- Despite having the operating environment indicated, it may not be possible to use the program with some types of personal computer.
- A CD-ROM drive is required to install this program.
- When you connect to an USB 2.0 interface board, use a certified board with the USB 2.0 (HI-SPEED USB) logo.

MotionDV STUDIO 5.3E LE for DV (NV-GS21/17: not supplied)

OS:
IBM PC/AT compatible personal computer with pre-installed;
Microsoft Windows XP Home Edition/Professional SP1 or later
Microsoft Windows 2000 Professional SP4 or later
Microsoft Windows Me (Millennium Edition) (Only in DV connection)

CPU:
Intel Pentium III 700 MHz/AMD Athlon 1 GHz or higher (including compatible CPU)

Graphic display:
High Colour (16 bit) or more (32 bit recommended)
Desktop resolution of 1024×768 pixels or more (Supporting the overlay of DirectDraw)
4 MB or more video memory

Sound:
PCM sound source (compatible DirectSound)

RAM:
256 MB or more (Adding more memories enables you to operate the personal computer more comfortably.)

Hard disk:
Ultra DMA - 33 or more

Free hard disk space:
640 MB or more
(When you capture video, 1 GB is needed for the data of approx. 4 minutes.)

Interface:
DV (IEEE1394) terminal (IEEE1394.a)
USB 2.0 (compatible Hi-Speed mode)

Other requirements:
Mouse

Software:
DirectX 9.0b or later
Windows Media Player 6.4 or later

- When 2 or more USB devices are connected to a personal computer, or when devices are connected through USB hubs or by using extension cables, proper operation is not guaranteed.
- When connected to the keyboard USB terminal, normal function may not be possible.
- This instruction manual describes only the procedures for installation, connection and start-up. Please read the PDF-based instructions for how to use the MotionDV STUDIO 5.3E LE.
- To view the installed operating instructions, Adobe Acrobat Reader 5.0 or later is required. Please install Adobe Acrobat Reader from the supplied CD-ROM.
- Before using for the first time, select [Readme First] from [Start] >> [All Programs (Programs)] >> [Panasonic] >> [MotionDV STUDIO 5.3E LE for DV], and read any supplementary details or updates.
- The software is available in English, German and French.

Video Stream Driver (NV-GS21/17: not supplied)

OS:
IBM PC/AT compatible personal computer with pre-installed;
Microsoft Windows XP Home Edition/Professional SP1 or later
CPU:
Intel Pentium III 450/Celeron 400 MHz or higher (including compatible CPU)
Graphic display:
High Colour (16 bit) or more
Desktop resolution of 800×600 pixels or more
RAM:
128 MB or more (256 MB or more recommended)
Free hard disk space:
250 MB or more
Communication Speed:
56 kbps or faster is recommended
Interface:
USB1.1 or more
Other requirements (to send/receive audio):
Sound card
Speaker or headphones
Software:
Windows Messenger 5.0 or later
DirectX 9.0b or later

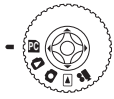
To use the movie camera as a Web Camera, the following conditions must be met.

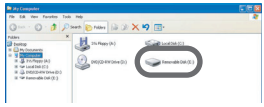
- In the case of Windows XP SP1 or later is needed, to upgrade Windows XP to SP1, click [Start] >> [All Programs] >> [Windows Update]. (Requires internet connection.)
- You have direct dial-up connection capability to the internet. Also, you and the other person(s) are in the same network (LAN).
- Install the Windows Messenger 5.0 or later.
- If the installed version is not latest, update it by performing the Windows update.
- If you are connected to the Internet through a firewall or a router, proper communication will not be possible.
- The installer is available only in English but can be used on operating systems using other languages.
- The other parties also need to use Windows Messenger on Windows XP during the communication.

USB Driver (NV-GS21/17: not supplied)

OS:
IBM PC/AT compatible personal computer with pre-installed;
Microsoft Windows 98 Second Edition
CPU:
Intel Pentium II/Celeron 300 MHz or higher (including compatible CPU)
RAM:
32 MB or more (64 MB or more recommended)
Interface:
USB1.1 or more

1





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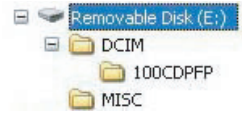

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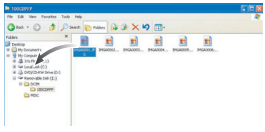


Copying files to a personal computer

- Card reader function (Mass storage) (NV-GS17: not available)

If you connect the movie camera to a personal computer with the USB cable, you can use the movie camera which includes a card as a external drive of a personal computer and you can copy files recorded on the card to the personal computer with [Explorer] etc.

■Copying files recorded on a card to a personal computer

If your OS is Windows 98SE, install the USB Driver first and connect the movie camera with the personal computer. (➜ 11) (NV-GS21: not available in Windows 98SE)

1 Select the PC Mode on the movie camera and then connect the movie camera with the personal computer.

- If the movie camera is connected in the PC mode, the [Removable Disk] icon representing the memory card drive is displayed in [My Computer].

2 Double-click the folder where the desired file is saved in [Removable Disk]

- Still pictures (JPEG format) are saved in [100CDPFP] folder.

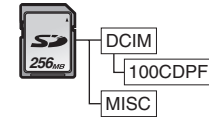
3 Drag and drop the file onto the destination folder (hard disk of the personal computer).

■Note on the folder structure of the card

A card formatted with the movie camera is composed by folders as described in the illustration below.

[100CDPFP]: The images (IMGA0001.jpg, etc.) in this folder are recorded in the JPEG format.

[MISC]: Files in which DPOF data has been set to the image are in this.



- The other folders in the card are necessary items in the folder structure. They have nothing to do with actual operations.

■Viewing files copied from a card

1 Open the folder to which still picture files are copied.

2 Double-click a file you want to view.

- The software activated to view still picture files varies depending on the settings of the personal computer you use.

Install/Connection

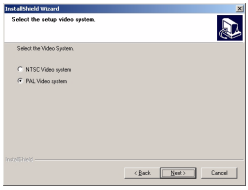
(except for NV-GS21/17)

Installing MotionDV STUDIO 5.3E LE

DirectX 9.0b is installed in your PC if it is not installed beforehand. Applications which are compatible with older version of DirectX may not operate properly by installing DirectX 9.0b. In this case, consult the manufacturers of the applications disabled.

2

3



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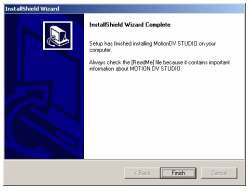

InstallShield Wizard
InstallShield Wizard Complete
Setup has finished installing MotionDV STUDIO on your computer.
Always check the [ReadMe] file because it contains important information about MOTION DV STUDIO.
< Back
Finish
Cancel

1 Insert the supplied CD-ROM into the personal computer's CD-ROM drive.

- Quit all applications.
- The [Setup Menu] screen appears.

2 Click [MotionDV STUDIO 5.3E LE].

- After reading the displayed contents, please carry out the installation according to instructions.

3 Select the video system.

4 After the completion of setup, click on [Finish].

- Sample data is installed concurrently with the MotionDV STUDIO 5.3E LE software.

2

3

Query
To use this driver, the DirectX 9.0b runtime library is required.
Do you wish to install the library?
Warning:
By installing DirectX 9.0b, applications compatible with the older version of DirectX may not run properly.
Once DirectX 9.0b installation is complete and the PC has been restarted, Web Camera driver will be installed.
Do not remove the CD-ROM until all installations are complete.
Yes
No

Installing Video Stream Driver

Install this when your OS is Windows XP SP1, or Windows 2000 SP4 or later.
(When your OS is Windows XP SP2 or later, installing Video Stream Driver is not needed.)
(The computer needs to be connected to the Internet.)
Video Stream Driver is needed to be installed when you connect the movie camera to the PC with the supplied USB cable and use MotionDV STUDIO.
DirectX 9.0b is installed in your PC if it is not installed beforehand. Applications which are compatible with older version of DirectX may not operate properly by installing DirectX 9.0b. In this case, consult the manufacturers of the applications disabled.

1 Insert the supplied CD-ROM into the personal computer's CD-ROM drive.
- Quit all applications.
- The [Setup Menu] screen appears.

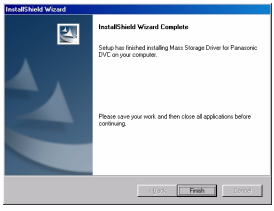
2 Click [Video Stream Driver].
- The set up program starts running.

3 You may be required to install DirectX 9.0b depending on the environment of the personal computer. In this case, click [Yes] to install it.
- Reboot the computer after DirectX is installed.
- Do not take out the CD-ROM.

4 Finish installation by following the on-screen instructions.
- Click [Next] and proceed with installation.
- After completing the installation, click [Finish].
- Reboot the computer to finish installing Video Stream Driver.

3

5


InstallShield Wizard
InstallShield Wizard Complete
Setup has finished installing Mass Storage Driver for Panasonic DVC on your computer.
Please save your work and then close all applications before continuing.
Finish

Installing USB Driver (Windows 98SE only)

The USB Driver to be installed is the dedicated mass storage driver for Windows 98SE. When your OS is any of Windows XP, Windows 2000 and Windows Me, you do not have to install the USB Driver because the standard driver is activated for the operation.
Please install USB device driver first before connecting the movie camera to your personal computer with the USB connection cable.

1 Turn on the personal computer and start up Windows.

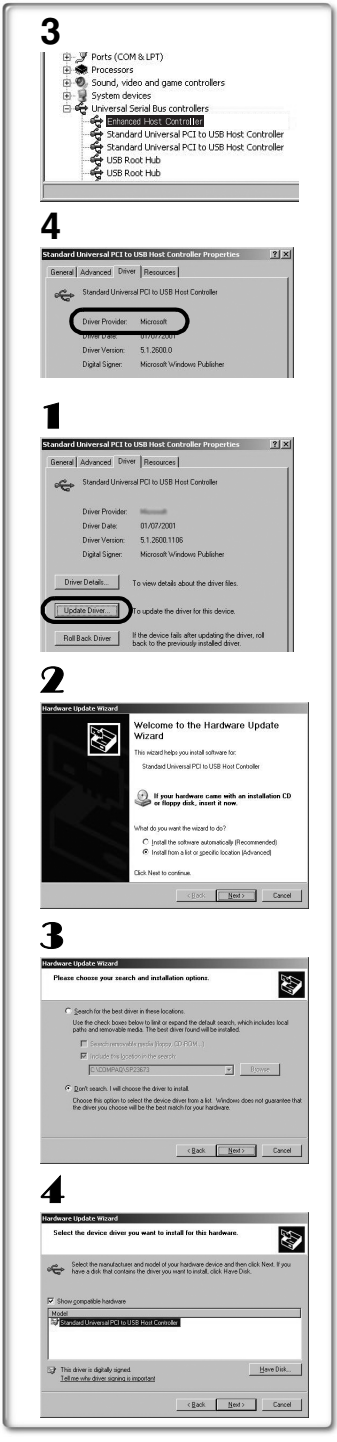
2 Insert the supplied CD-ROM into the personal computer's CD-ROM drive.
- ●Quit all applications.
- ●The [Setup Menu] screen appears.

3 Click [USB Driver].
- ●The set up program starts running.

4 Finish installation by following the on-screen instructions.
- ●Click [Next] and proceed with installation.
- ●After completing the installation, click [Finish].

5 Click [Finish] when the [Restarting Windows] dialogue appears.
- ●Reboot the computer to finish installing USB Driver.
- ●Installation continues after the computer reboots if you selected additional software.

●A message indicating a conflict between versions may be displayed during the installation. This will not cause a problem. Simply click [Yes] to proceed with the installation.


3
Ports (COM & LPT)
Processors
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Enhanced Host Controller
Standard Universal PCI to USB Host Controller
Standard Universal PCI to USB Host Controller
USB Root Hub
USB Root Hub
4
Standard Universal PCI to USB Host Controller Properties
General
Advanced
Driver
Resources
Standard Universal PCI to USB Host Controller
Driver Provider:
Microsoft
Driver Version:
5.1.2600.0
Digital Signer:
Microsoft Windows Publisher
1
Standard Universal PCI to USB Host Controller Properties
General
Advanced
Driver
Resources
Standard Universal PCI to USB Host Controller
Driver Date:
01/07/2001
Driver Version:
5.1.2600.1106
Digital Signer:
Microsoft Windows Publisher
Driver Details...
To view details about the driver files.
Update Driver...
To update the driver for this device.
Roll Back Driver
If the device fails after updating the driver, roll back to the previously installed driver.
2
Hardware Update Wizard
Welcome to the Hardware Update Wizard
This wizard helps you install software for:
Standard Universal PCI to USB Host Controller
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel
3
Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
C:\COMPAQ\SP23873
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel
4
Hardware Update Wizard
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Show compatible hardware
Model
Standard Universal PCI to USB Host Controller
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

Connecting the movie camera to personal computer

- When you use a personal computer, use of the AC adaptor is recommended for the power supply of the movie camera.

■Confirmation before connection (for Windows XP/2000)

When you connect the personal computer and the movie camera with the USB connection cable and then use MotionDV STUDIO on Windows XP (SP1 or later) or Windows 2000 (SP4 or later), check the driver of the USB host controller.

- **It is required to use the driver for which [Microsoft] is displayed on [Driver Provider] in [Driver] tab.**

1 Select [Start] >> [Settings] >> [Control Panel] to start [System].
- [System Properties] is displayed.

2 Click [Hardware] tab and then click [Device Manager].

3 Right-click [Enhanced Host Controller] etc. in [Device Manager] and then select [Properties].
- The indication [Enhanced Host Controller] is changed as [EHCI] depending on the host controller you use.

4 Click [Driver] tab to check the description on [Driver Provider].
- If [Microsoft] is displayed on [Driver Provider], the confirmation procedure is completed.

If a description other than [Microsoft] is displayed

- Update the driver with the following procedure.

1 Click [Update Driver...].

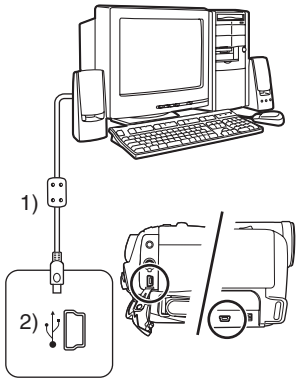
2 Check [Install from a list or specific location (Advanced)] and then click [Next].
- When your OS is Windows 2000, click [Next] after [Update Device Driver Wizard] appears.

3 (When your OS is Windows XP)
Check [Don't search. I will choose the driver to install] and then click [Next].

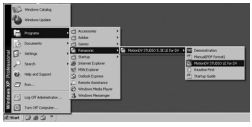
(When your OS is Windows 2000)
Check [Display a list of the known drivers for this device so that I can choose a specific driver] and then click [Next].

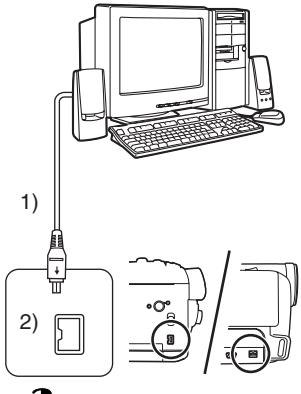
4 Click [Standard Universal PCI to USB Host Controller] and then click [Next].

5 Click [Finish].
- The update of the driver is completed. Connect the movie camera.

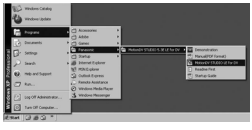


4





3



Software

Using MotionDV STUDIO 5.3E LE

(except for NV-GS21/17)

If you wish to capture data from a tape, set the movie camera to tape playback mode and insert the tape. If you wish to capture images from the lens of the movie camera, set the movie camera to the tape recording mode and remove the tape and the card.

- If a short-cut icon has been created on the desktop during installation, it is also possible to start by double-clicking on the icon.
- Please read the PDF-based instructions for how to use it.

With USB connection cable (supplied)

OS: Windows XP SP1 or later
Windows 2000 SP4 or later
The personal computer should be compatible with USB 2.0 Hi-Speed.

1 Set the movie camera to tape playback mode or tape recording mode.
2 Set [BASIC] or [ADVANCE] >> [USB FUNCTION] >> [MOTION DV].
3 Connect the movie camera to personal computer with auxiliary USB connection cable.
4 Select [Start] >> [All Programs (Programs)] >> [Panasonic] >> [MotionDV STUDIO 5.3E LE for DV] >> [MotionDV STUDIO LE for DV].

- You cannot record the video edited by the PC onto the tape in the movie camera.

1) USB connection cable
2) USB terminal

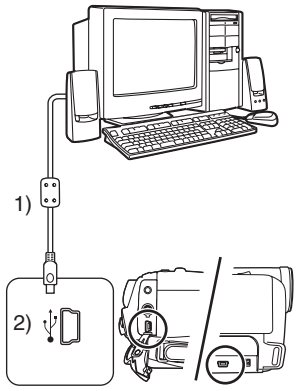
With DV cable (optional)

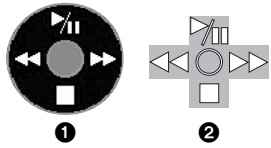
OS: Windows Me/2000/XP

1 Set the movie camera to tape recording mode or tape playback mode.
2 Connect the movie camera to personal computer with auxiliary DV cable.
3 Select [Start] >> [All Programs (Programs)] >> [Panasonic] >> [MotionDV STUDIO 5.3E LE for DV] >> [MotionDV STUDIO LE for DV].

- You can record the video edited by the PC onto the tape in the movie camera.

1) DV cable
2) DV terminal





Using the movie camera as a Web Camera
(Windows XP SP1 or later only)
(NV-GS21/17: Windows XP SP2 or later only)

To upgrade Windows XP to SP1 (SP2) or later, select [Start] >> [Windows Update].
If the movie camera is connected to your personal computer, you can send video and sound from the movie camera to the other parties via the network. Audio may also be exchanged if the personal computer is configured accordingly. (You can use the microphone equipped with the personal computer instead of the one on the movie camera.)

● Refer to page 6 for the minimum requirements.

■ Connecting the movie camera to personal computer (For using as a Web Camera)

1 Install Video Stream Driver and then make the movie camera recognized by a personal computer. (➜ 10) (except for NV-GS21/17)
2 Set [ADVANCE] >> [USB FUNCTION] >> [WEBCAM]. (except for NV-GS21/17)
3 Connect the movie camera to personal computer with auxiliary USB connection cable.
4 Start the Windows Messenger.
● Click [Start] >> [Programs] >> [Windows Messenger].

1) USB connection cable (NV-GS17: not supplied)
2) USB terminal
3) The WEB CAMERA mode screen

● To send pictures recorded on a tape to other personal computer using the Windows Messenger, set [BASIC] >> [USB FUNCTION] >> [WEBCAM] on tape playback mode before connecting the movie camera to your personal computer.
(Menu setting cannot be performed in NV-GS21/17.)

When you use the movie camera as a Web camera
When you use the movie camera as a Web camera in the tape playback mode, the indication of the operation icon is different from the one in usual operation.

❶ In usual operation
❷ In the WEB CAMERA mode (Tape playback mode)

● Even if you move the joystick up/down/right/left (▶/❚❚, ■, ►►, ◄◄), the selected direction on the operation icon is not lit in yellow.
● The operation icon blinks on instead of appearing from the side of the screen when you press the center of the joy stick.

Others

To disconnect USB cable safely
(except for NV-GS17)

If USB cable is disconnected while computer is on, error dialogue may appear. In such case click [OK] and close the dialogue box. By following the steps below you can disconnect the cable safely.

1 Double click the icon in task tray.
- Hardware disconnect dialogue appears.

2 Select [USB Mass Storage Device] and click [Stop].

3 Verify [Matshita DVC USB Device] is selected and click [OK].
- Click [OK], and you can safely disconnect the cable.

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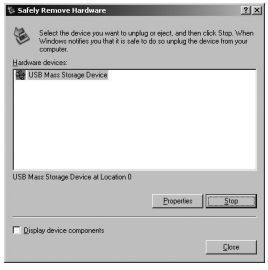
Safely Remove Hardware
Select the device you want to unplug or eject, and then click Stop. When Windows notifies you that it is safe to do so unplug the device from your computer.
Hardware devices:
USB Mass Storage Device
USB Mass Storage Device at Location 0
Properties
Stop
Display device components
Close

3

Stop a Hardware device
Confirm devices to be stopped, Choose OK to continue.
Windows will attempt to stop the following devices. After the devices are stopped they may be removed safely.
USB Mass Storage Device
Matshita DVC USB Device
OK
Cancel

Note on the driver name displayed

The driver name displayed will differ depending on your OS, operating environment and the mode of the movie camera.

- Windows XP/2000: The name is displayed as [USB Mass Storage Device] or [Matshita DVC USB Device] in PC mode.
- Windows Me: The name is displayed as [USB Disk] or [Matshita DVC] in PC mode.

- If you use Windows 98SE, the icon is not displayed on the task tray.
- Make sure movie camera's function light is off and disconnect the cable. Please also read the movie camera's operating instructions.

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If you no longer need software or driver
(Uninstall) (except for NV-GS21/17)

The screens may vary with the type of the OS. (In this manual, explanation is offered with Windows XP screen.)

1 Select [Start] (>> [Settings]) >> [Control Panel], select the software or the driver from [Add/Remove Programs] to uninstall.

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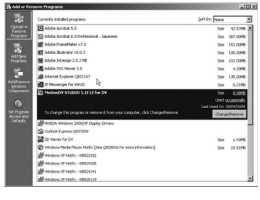

- Uninstalling steps may vary depending on the OS. Please refer to the user manual of your OS.
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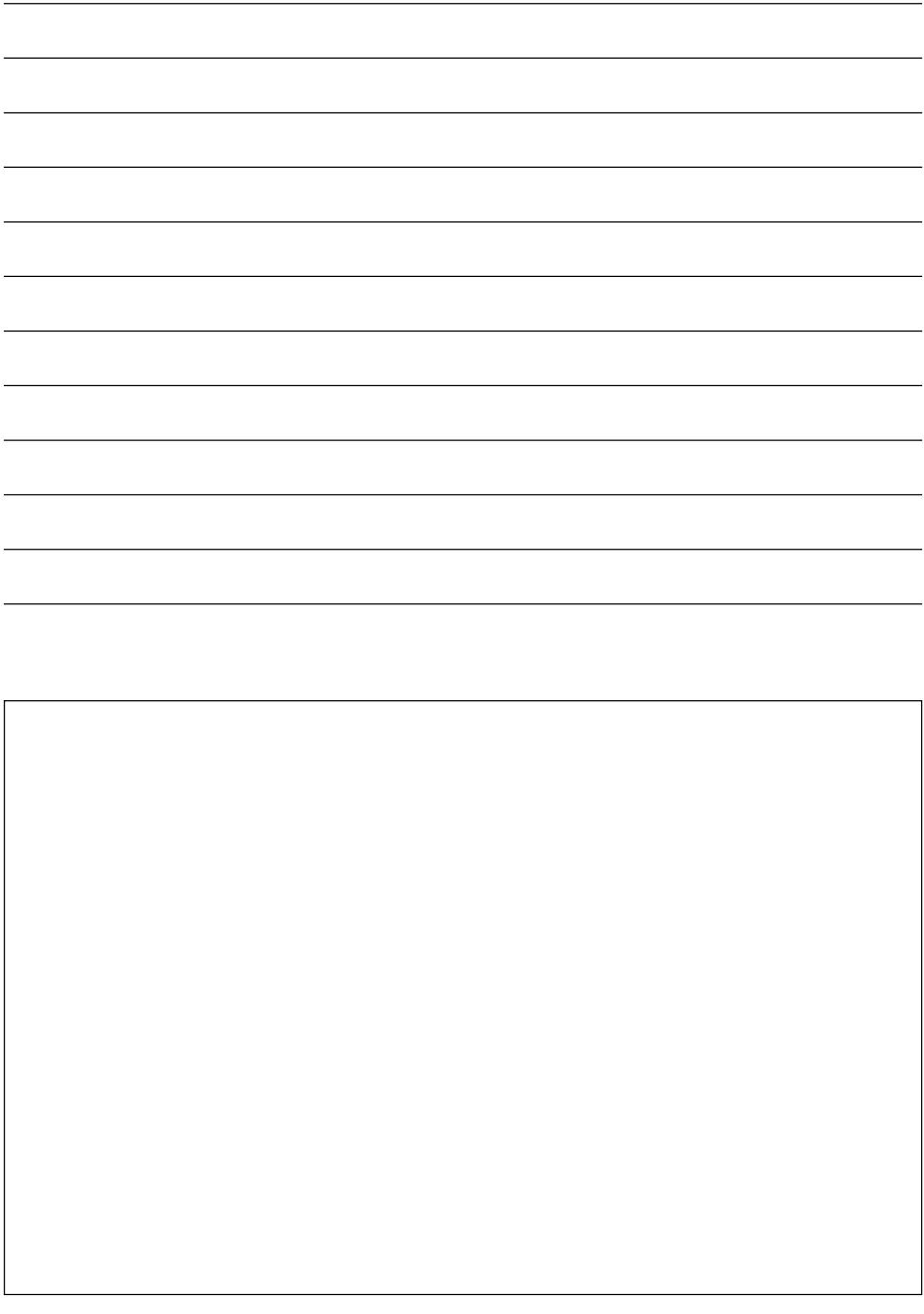
Notes

- Do not disconnect USB connection cable while the access light of the movie camera is on. It may freeze the software or destroy the data in transfer. Please refer to the operating instructions of movie camera.
- When the movie camera is switched to the PC mode while it is connected to the personal computer, the operation mode of the movie camera cannot be switched. In this case, disconnect the USB connection cable. Switch the operation mode of the movie camera and reconnect the cable. (except for NV-GS17)
- If the movie camera is used as a Web Camera, the quality of the video to be exchanged will depend on the Internet connection status.
- In the WEB CAMERA mode, video (picture) cannot be recorded onto a tape or a card.
- In the WEB CAMERA mode, the audio may be interrupted in the midway of communication depending on the communication environment or the performance of the personal computer.
- If you connect the USB connection cable while you operate a tape in the tape playback mode, the tape will be stopped.
- If you connect the USB connection cable in the WEB CAMERA mode (tape recording mode), the time code indication, the SP/LP indication, or icons disappear.
- In the WEB CAMERA mode (tape playback mode), the operation icon is changed.
- When the tape recording mode of the movie camera is switched to the PC mode, a warning message may be displayed. You may simply ignore it. (except for NV-GS17)
- When you are using Windows XP or Windows 2000, you may install or uninstall this software after logging on by setting the user name to Administrator or to a user name having equivalent authority. (except for NV-GS21/17)
- If the movie camera is used as a Web Camera while virus checking software is running, the movie camera's operation may stop midway through. In this case, exit the Windows Messenger, reconnect the movie camera and restart the Windows Messenger.
- We recommend using AC adaptor as the power source for the movie camera when connecting to the personal computer. Data may be lost if the battery power is lost while transferring.
- Do not delete the folders in a card. The card may not be recognized if deleted. (except for NV-GS17)
- If you install the USB Driver or Video Stream Driver while the USB connecting cable is being connected, or if you don't follow these operating instructions, the movie camera will not be recognized correctly. In this case, delete the driver from [Device Manager] as described below, uninstall the driver, and re-install it. (except for NV-GS21/17)
  - ❶ Set the movie camera to tape recording mode or tape playback mode, connect it to the personal computer, and delete [USB Video Device] (or [Panasonic DVC DV Stream Device]) from [Device Manager].
  - ❷ If you use Windows 98SE, set the movie camera to PC mode and delete [Panasonic DVC USB Storage].



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Web site: http://www.panasonic.co.jp/global/